

Viral Hemorrhagic Fever

What is viral hemorrhagic fever?

Viral hemorrhagic fever is a disease caused by viruses that live, for the most part, in rodents (e.g., rats and mice) and arthropods (e.g., mosquitoes and ticks). There are four distinct viruses that cause hemorrhagic fevers: arenaviruses, filoviruses, bunyaviruses, and flaviviruses.

Who gets viral hemorrhagic fever?

Anyone can get viral hemorrhagic fever, but it generally occurs in people living in or visiting areas with infected rodents or arthropods. Viral hemorrhagic fevers are more common in Africa; however, infected rodents and arthropods carry some of the viruses that cause viral hemorrhagic fevers in many parts of the world, including North and South America, Europe and Asia.

How is viral hemorrhagic fever spread?

Most people get viral hemorrhagic fever through exposure to an infected rodent or arthropod. Viruses associated with arthropods are spread when a mosquito or tick bites a human. Viruses associated with rodents are spread through direct contact with rodent urine or feces; they are also spread when people breathe in particles from rodent urine or feces that have gotten into the air (e.g., from sweeping dirt containing dried urine or feces). Spread of viral hemorrhagic fever has also occurred when humans handle an infected animal. Some viral hemorrhagic fevers are spread from person-to-person through close contact with body fluids (e.g., saliva, blood, urine, semen).

Could viral hemorrhagic fever be used for bioterrorism?

Yes. Many hemorrhagic fever viruses are considered possible bioterrorism agents because they are highly infectious, can be aerosolized (made airborne), and would cause serious illness in the population. Some countries are known to have used viral hemorrhagic fever viruses in their biological warfare programs.

What are the symptoms of viral hemorrhagic fever?

Specific symptoms vary by type of viral hemorrhagic fever, but initial symptoms often include: fever, fatigue, dizziness, muscle aches, loss of strength and exhaustion. Patients with severe cases of viral hemorrhagic fever often bleed under the skin, in internal organs or from body openings. Patients may also have shock, problems with the nervous system, coma, and seizures.

How soon after exposure do symptoms appear?

Symptoms may appear anywhere from 2 to 21 days after exposure, depending on the type of viral hemorrhagic fever.

How is it diagnosed?

Viral hemorrhagic fever is diagnosed through special laboratory tests conducted by the U.S. Centers for Disease Control and Prevention. Samples may be taken from the blood and various tissues. Testing is done only with prior consultation.

What is the treatment for viral hemorrhagic fever?

Patients receive supportive care for relief of symptoms. Certain antiviral medications have been effective in treating some patients with certain types of viral hemorrhagic fever (e.g., arenaviruses and bunyaviruses).

How can viral hemorrhagic fever be prevented?

No vaccines exist for viral hemorrhagic fevers, except for yellow fever. Yellow fever vaccine is recommended only for individuals traveling to areas such as tropical South America and sub-Saharan Africa. The best way to prevent viral hemorrhagic fevers is to avoid contact with infected rodents and arthropods. Person-to-person transmission can be reduced through proper infection control techniques, including hand washing and proper use of masks, gowns, and gloves.